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    FILE 'HCAPLUS' ENTERED AT 14:21:28 ON 12 DEC 2008
L1          5354 S BETA GLUCAN
L2        575595 S ANTIBODY OR ANTIBODIES OR IMMUNOGLOBULIN OR IGG
L3        228947 S YEAST OR ZYMOSAN
L4        185259 S BRANCHED OR BRANCHING OR BRANCH
L5           354 S L1 AND L2
L6           102 S L1 AND L2 AND L3
L7             5 S L1 AND L2 AND L3 AND L4
L8        877426 S CANCER OR TUMOR OR NEOPLA?
L9           102 S L1 AND L2 AND L3 AND L6
L10           27 S L1 AND L2 AND L3 AND L8
L11           12 S L10 AND (PY<2005 OR AY<2005 OR PRY<2005)
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=> file hcaplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'HCAPLUS' ENTERED AT 14:21:28 ON 12 DEC 2008
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FILE COVERS 1907 - 12 Dec 2008  VOL 149 ISS 25
FILE LAST UPDATED: 11 Dec 2008  (20081211/ED)

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s beta glucan
       1575694 BETA
         16591 GLUCAN
L1        5354 BETA GLUCAN
                 (BETA(W)GLUCAN)

=> s antibody or antibodies or immunoglobulin or IGG
        339895 ANTIBODY
        409341 ANTIBODIES
         32650 IMMUNOGLOBULIN
         81605 IGG
L2      575595 ANTIBODY OR ANTIBODIES OR IMMUNOGLOBULIN OR IGG

=> s yeast or zymosan
        223053 YEAST
          6172 ZYMOSAN
L3      228947 YEAST OR ZYMOSAN

=> s branched or branching or branch
         85085 BRANCHED
         60380 BRANCHING
         51986 BRANCH
L4      185259 BRANCHED OR BRANCHING OR BRANCH

=> s l1 and l2
L5          354 L1 AND L2

=> s l1 and l2 and l3
L6          102 L1 AND L2 AND L3
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=> s l1 and l2 and l3 and l4
L7            5 L1 AND L2 AND L3 AND L4

=> d l7 1-5 ti abs bib

L7   ANSWER 1 OF 5  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Oral administration of a new soluble branched
     β-1,3-D-glucan is well tolerated and can lead to increased salivary
     concentrations of immunoglobulin A in healthy volunteers
AB   The soluble branched yeast β-1,3-D-glucan (SBG)
     belongs to a group of carbohydrate polymers known to exert potent
     immunomodulatory effects when administered to animals and humans.  A new
     oral solution of SBG has been developed for local application to the
     oropharyngeal and esophageal mucosa in order to strengthen the defense
     mechanisms against microbial and toxic influences.  In the present study
     oral administration of SBG has been investigated primarily for assessment
     of safety and tolerability in an early phase human pharmacol. study (phase
     I).  Eighteen healthy volunteers were included among non-smoking
     individuals.  The study was an open 1 : 1 : 1 dose-escalation safety study
     consisting of a screening visit, an administration period of 4 days and a
     follow-up period.  Groups of six individuals received SBG 100 mg/day, 200
     mg/day or 400 mg/day, resp., for 4 consecutive days.  The dose increase
     was allowed after a careful review of the safety data of the lower dose
     group.  No drug-related adverse event, including abnormalities in vital
     signs, was observed  By inspection of the oral cavity only minor mucosal
     lesions not related to the study medication were seen in seven subjects.
     Repeated measurements of β -glucan in serum
     revealed no systemic absorption of the agent following the oral doses of
     SBG.  In saliva, the IgA concentration increased significantly for the highest
     SBG dose employed.  SBG was thus safe and well tolerated by healthy
     volunteers, when given orally once daily for 4 consecutive days at doses
     up to 400 mg.
AN   2006:111575  HCAPLUS <<LOGINID::20081212>>
DN   145:20695
TI   Oral administration of a new soluble branched
     β-1,3-D-glucan is well tolerated and can lead to increased salivary
     concentrations of immunoglobulin A in healthy volunteers
AU   Lehne, G.; Haneberg, B.; Gaustad, P.; Johansen, P. W.; Preus, H.;
     Abrahamsen, T. G.
CS   Clinical Research Unit, Rikshospitalet-Radiumhospitalet Trust, Oslo,
     Norway
SO   Clinical and Experimental Immunology (2006), 143(1), 65-69
     CODEN: CEXIAL; ISSN: 0009-9104
PB   Blackwell Publishing Ltd.
DT   Journal
LA   English
RE.CNT  35    THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7   ANSWER 2 OF 5  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Solubilized cell wall β -glucan, CSBG, is an
     epitope of Candida immune mice
AB   Antibody to β -glucan is generally
     difficult to produce in mice.  The authors have recently developed a
     protocol to obtain a soluble Candida spp.  β-(1→3)-D-Glucan
     (CSBG) by sodium hypochlorite (NaClO) oxidation and subsequent DMSO (Me2SO)
     extraction  CSBG is composed mainly of β-(1→3) and
     β-(1→6)-glucosidic linkages with a small amount of
     branch.  In this paper, mice were immunized with Candida albicans
     and the specificity of the resulting sera to CSBG was examined by ELISA.
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Using CSBG coated plate, sera of the Candida immune mice showed higher reactivity than non-immune, normal mice and the reactivity was neutralized by adding soluble CSBG as a competitor. However, the reactivity could not be neutralized by a β-(1→6) branched β-(1→3)-glucan, grifolan. Similar specificity of the sera was obtained by com. available β -glucan particle, zymosan or zymocel, immune mice. These facts strongly suggested that CSBG included epitopes of the specific antibody in Candida immune mice.

AN 2000:311223 HCAPLUS <<LOGINID::20081212>>
DN 133:72623
TI Solubilized cell wall β -glucan, CSBG, is an epitope of Candida immune mice
AU Uchiyama, Michiharu; Ohno, Naohito; Miura, Noriko N.; Adachi, Yoshiyuki; Tamura, Hiroshi; Tanaka, Shigenori; Yadomae, Toshiro
CS Laboratory for Immunopharmacology of Microbial Products, School of Pharmacy, Tokyo University of Pharmacy and Life Science, Tokyo, 192-0392, Japan
SO Biological & Pharmaceutical Bulletin (2000), 23(5), 672-676
CODEN: BPBLEO; ISSN: 0918-6158
PB Pharmaceutical Society of Japan
DT Journal
LA English
RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN
TI PGG-Glucan, a soluble β-(1,3)-glucan, enhances the oxidative burst response, microbicidal activity, and activates an NF-κB-like factor in human PMN: Evidence for a glycosphingolipid β-(1,3)-glucan receptor
AB PGG-Glucan, a soluble β-(1,6)- branched β-(1,3)-linked glucose homopolymer derived from the cell wall of the yeast Saccharomyces cerevisiae, is an immunomodulator which enhances leukocyte anti-infective activity and enhances myeloid and megakaryocyte progenitor proliferation. Incubation of human whole blood with PGG-Glucan significantly enhanced the oxidative burst response of subsequently isolated blood leukocytes to both soluble and particulate activators in a dose-dependent manner, and increased leukocyte microbicidal activity. No evidence for inflammatory cytokine production was obtained under these conditions. Electrophoretic mobility shift assays demonstrated that PGG-Glucan induced the activation of an NF-κB-like nuclear transcription factor in purified human neutrophils. The binding of 3H-PGG-Glucan to human leukocyte membranes was specific, concentration-dependent, saturable, and high affinity (Kd.apprx.6 nM). A monoclonal antibody specific to the glycosphingolipid lactosylceramide was able to inhibit activation of the NF-κB-like factor by PGG-Glucan, and ligand binding data, including polysaccharide specificity, suggested that the PGG-Glucan binding moiety was lactosylceramide. These results indicate that PGG-Glucan enhances neutrophil anti-microbial functions and that interaction between this β -glucan and human neutrophils is mediated by the glycosphingolipid lactosylceramide present at the cell surface.
AN 1999:112996 HCAPLUS <<LOGINID::20081212>>
DN 130:351132
TI PGG-Glucan, a soluble β-(1,3)-glucan, enhances the oxidative burst response, microbicidal activity, and activates an NF-κB-like factor in human PMN: Evidence for a glycosphingolipid β-(1,3)-glucan receptor
AU Wakshull, Eric; Brunke-Reese, Deborah; Lindermuth, Johanna; Fisette,

Leslie; Nathans, Robin S.; Crowley, John J.; Tufts, Jeffrey C.; Zimmerman, Janet; Mackin, William; Adams, David S.
CS Department of Biology, Alpha-Beta Technology, Worcester, MA, 01605, USA
SO Immunopharmacology (1999), 41(2), 89-107
CODEN: IMMUDP; ISSN: 0162-3109
PB Elsevier Science B.V.
DT Journal
LA English
RE.CNT 89 THERE ARE 89 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Interrelation of structure and antitumor effects of fungal (1→3) β-D-glucans.
AB In the last 25 yr chemical and pharmacol. studies have been focused on the non-cytotoxic, immunomodulating polysaccharides. Yeast and related fungal (1→3)-β-D-glucans, especially, those having appropriate O-6-β-D-glucosyl branches (db, 1/3 to 1/5) exhibited strong antitumor effects, and can be used as an immnumostimulator in cancer therapy. Such antitumor effects may be due to the triple helix of the backbone; (1→6)- β -glucan of lichen and also synthetic branched (1→4)-β-D-glucans were inactive. In addition, our extensive studies on the structure-activity relationship using various branched (1→3)-β-D-glucans (db, 1/25 - 3/4) showed that the distribution of the branches along the backbone and their mol. shapes may also play a role in expression of antitumor activity, as indicated by modification of the side chains. We will discuss interrelation of structure and antitumor effects of immunomodifying glucans, e.g, an exocellular glucan of Pestalotia sp (db, 3/5), and a highly active glucan (db. 1/4) from Volvariella volvaceas, and also antibody specificities of Volvariella glucan.
AN 1996:412276 HCAPLUS <<LOGINID::20081212>>
TI Interrelation of structure and antitumor effects of fungal (1→3) β-D-glucans.
AU Misaki, A.; Kakuta, M.; Kishida, Etsu
CS Faculty Human Life Science, Osaka City University, Sumiyoshi, 558, Japan
SO Book of Abstracts, 212th ACS National Meeting, Orlando, FL, August 25-29 (1996), CARB-042 Publisher: American Chemical Society, Washington, D. C.
CODEN: 63BFAF
DT Conference; Meeting Abstract
LA English

L7 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Effect of structurally different yeast β-glucans on immune responses in Atlantic salmon (Salmo salar L.)
AB The immunostimulatory effects of different yeast β-glucans in Atlantic salmon were studied in three sets of expts. First, the different β-glucans were assessed for their ability to induce an increase in blood lysozyme activity after i.p. injection. Second, the same glucans were included in an exptl. furunculosis vaccine, where their adjuvant effects on antibody response against the bacterial antigen were examined Finally, the ability of the glucans to prime the respiratory burst response of salmon macrophages was investigated. In an earlier study it was demonstrated that of two different yeast β-glucans, Macro-Gard (previously known as M-Glucan) was significantly more potent in protecting Atlantic salmon against bacterial pathogens than the other called DL-Glucan. The present study showed that the principal structural differences between these two yeast β-glucans were the presence of β-1,6-linked chains in MacroGard which were absent in DL-Glucan, and the more frequent branching

in MacroGard compared to DL-Glucan. With respect to immunostimulatory effects, MacroGard was more effective in inducing responses than DL-Glucan in all three sets of expts. By studying the effects of MacroGard particles treated chemical or enzymically to remove β-1,6-linkages, the authors found that the β-1,6-linked chains did not seem to be important for the immunostimulatory effect. It was demonstrated that the majority of side chains in MacroGard were β-1,3-linked and, furthermore, the results indicated that the number of β-1,3-linked side chains may be decisive for the immunostimulatory effect of yeast β -glucan in Atlantic salmon.

AN 1996:125403 HCAPLUS <<LOGINID::20081212>>
DN 124:198499
OREF 124:36631a,36634a
TI Effect of structurally different yeast β-glucans on immune responses in Atlantic salmon (Salmo salar L.)
AU Engstad, Rolf E.; Robertsen, Boerre
CS Norwegian College Fishery Science, University Tromso, Tromso, N-9037, Norway
SO Journal of Marine Biotechnology (1995), 3(1-3, Proceedings of the Third International Marine Biotechnology Conference, 1994), 203-7
CODEN: JMBOEW; ISSN: 0941-2905
PB Springer
DT Journal
LA English

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=> s cancer or tumor or neopla?
        385201 CANCER
        477055 TUMOR
        571101 NEOPLA?
L8      877426 CANCER OR TUMOR OR NEOPLA?

=> s l1 and l2 and l3 and l6
L9         102 L1 AND L2 AND L3 AND L6

=> d his

     (FILE 'HOME' ENTERED AT 14:20:55 ON 12 DEC 2008)

     FILE 'HCAPLUS' ENTERED AT 14:21:28 ON 12 DEC 2008
L1         5354 S BETA GLUCAN
L2       575595 S ANTIBODY OR ANTIBODIES OR IMMUNOGLOBULIN OR IGG
L3       228947 S YEAST OR ZYMOSAN
L4       185259 S BRANCHED OR BRANCHING OR BRANCH
L5          354 S L1 AND L2
L6          102 S L1 AND L2 AND L3
L7            5 S L1 AND L2 AND L3 AND L4
L8       877426 S CANCER OR TUMOR OR NEOPLA?
L9          102 S L1 AND L2 AND L3 AND L6

=> log hold
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                25.31      25.52

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                -4.00      -4.00

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STN INTERNATIONAL SESSION SUSPENDED AT 14:23:42 ON 12 DEC 2008
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LOGINID:SSPTAEXO1623

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'HCAPLUS' AT 14:30:12 ON 12 DEC 2008
FILE 'HCAPLUS' ENTERED AT 14:30:12 ON 12 DEC 2008
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                    25.31      25.52

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                    -4.00      -4.00

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      25116725 PY<2005
       5117814 AY<2005
       4593999 PRY<2005
L11         12 L10 AND (PY<2005 OR AY<2005 OR PRY<2005)

=> d l11 1-12 ti abs bib

L11  ANSWER 1 OF 12  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Drug delivery product and methods
AB   The present invention provides a particulate delivery system comprising an
     extracted yeast cell wall comprising β -glucan
     , a payload mol., and a payload trapping mol.  The invention further
     provides methods of making and methods of using the particulate delivery
     system.
AN   2005:1335040  HCAPLUS <<LOGINID::20081212>>
DN   144:74766
TI   Drug delivery product and methods
IN   Ostroff, Gary R.
PA   USA
SO   U.S. Pat. Appl. Publ., 45 pp.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 3
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    ---------------------  --------
PI   US 20050281781      A1     20051222    US 2004-869693         20040616 <--
     CA 2570313          A1     20060119    CA 2005-2570313        20050615 <--
     WO 2006007372       A2     20060119    WO 2005-US21161        20050615 <--
     WO 2006007372       A3     20060921
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
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            NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
            SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
            ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
            CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM,
            KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG,
            KZ, MD, RU, TJ, TM
    EP 1755567         A2    20070228    EP 2005-786318         20050615 <--
        R:  AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
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            HR, LV, MK, YU
    CN 101001615       A     20070718    CN 2005-80019946       20050615 <--
    BR 2005012068      A     20080206    BR 2005-12068          20050615 <--
    JP 2008503472      T     20080207    JP 2007-516687         20050615 <--
    US 20060083718     A1    20060420    US 2005-230017         20050919 <--
    MX 2006PA14552     A     20070523    MX 2006-PA14552        20061213 <--
    IN 2007KN00163     A     20070629    IN 2007-KN163          20070112 <--
PRAI US 2004-869693    A     20040616  <--
    US 2004-610872P    P     20040917  <--
    WO 2005-US21161    W     20050615

L11 ANSWER 2 OF 12  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI  Frequency-assisted transdermal agent delivery method and system
AB  The invention discloses an apparatus and method for transdermally delivering a
    biol. active agent comprising a delivery system having a microprojection
    member (or system) that includes a plurality of microprojections (or array
    thereof) that are adapted to pierce through the stratum corneum into the
    underlying epidermis layer, or epidermis and dermis layers, a formulation
    containing the biol. active agent and an oscillation-inducing device.  In one
    embodiment, the biol. active agent is contained in a biocompatible coating
    that is applied to the microprojection member.  In a further embodiment,
    the delivery system includes a gel pack having an agent-containing hydrogel
    formulation that is disposed on the microprojection member after
    application to the skin of a patient.  In an alternative embodiment, the
    biol. active agent is contained in both the coating and the hydrogel
    formulation.
AN  2005:614580  HCAPLUS <<LOGINID::20081212>>
DN  143:139175
TI  Frequency-assisted transdermal agent delivery method and system
IN  Chan, Keith T.; Cormier, Michel J. N.; Lin, WeiQi
PA  USA
SO  U.S. Pat. Appl. Publ., 24 pp.
    CODEN: USXXCO
DT  Patent
LA  English
FAN.CNT 1
    PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI  US 20050153873      A1     20050714    US 2004-971441         20041021 <--
    AU 2004314416       A1     20050804    AU 2004-314416         20041021 <--
    WO 2005069758       A2     20050804    WO 2004-US34923        20041021 <--
        W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
            LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
            NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
            TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
            AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
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            SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
            SN, TD, TG
     BR 2004017757        A     20070410    BR 2004-17757          20041021 <--
     JP 2007519446        T     20070719    JP 2006-549239         20041021 <--
PRAI US 2004-535275P      P     20040109  <--
     WO 2004-US34923      W     20041021  <--

L11  ANSWER 3 OF 12  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Cancer therapy using β -glucan and
     monoclonal antibodies
AB   The invention provides methods for using neutral soluble glucan and
     monoclonal antibodies for antitumor therapy.  Neutral soluble
     β (1,3; 1,6) glucan enhances the tumoricidal activity of the innate
     immune system by binding to the C3 complement protein receptor CR3.  The
     glucan does not stimulate the induction of inflammatory cytokines.  Also
     described are methods of using whole glucan particles as an
     immunomodulator by inducing a shift from a Th2 response to the Th1
     response, leading to an enhanced antitumor cytotoxic T-cell response.
AN   2004:308355  HCAPLUS <<LOGINID::20081212>>
DN   140:297492
TI   Cancer therapy using β -glucan and
     monoclonal antibodies
IN   Ross, Gordon D.
PA   University of Louisville Research Foundation, Inc., USA
SO   PCT Int. Appl., 92 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 2
     PATENT NO.           KIND   DATE        APPLICATION NO.        DATE
     ---------------      ----   --------    -------------------    --------
PI   WO 2004030613        A2     20040415    WO 2003-US27975        20030904 <--
     WO 2004030613        A3     20050113
          W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
              PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
              TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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              FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
              BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2496508           A1     20040415    CA 2003-2496508        20030904 <--
     AU 2003295326        A1     20040423    AU 2003-295326         20030904 <--
     EP 1539194           A2     20050615    EP 2003-786508         20030904 <--
          R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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     CN 1694715           A      20051109    CN 2003-824893         20030904 <--
     CN 1939335           A      20070404    CN 2006-10136269       20030904 <--
     US 20060009419       A1     20060112    US 2005-526185         20050803 <--
PRAI US 2002-408126P      P      20020904  <--
     CN 2003-824893       A3     20030904  <--
     WO 2003-US27975      W      20030904  <--

L11  ANSWER 4 OF 12  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Cancer therapy using whole glucan particles and
     antibodies
AB   The present invention relates to methods of using whole glucan particles
     and complement activating antibodies for antitumor therapy.
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Whole glucan particles enhance the tumoricidal activity of the innate immune system by binding to the C3 complement protein receptor CR3. This binding enhances innate immune system cytotoxicity, as well as stimulating the release of activating cytokines.

AN 2004:220160 HCAPLUS <<LOGINID::20081212>>

DN 140:247055

TI Cancer therapy using whole glucan particles and antibodies

IN Ostroff, Gary R.; Ross, Gordon D.

PA Biopolymer Engineering, Inc., USA; University of Louisville Research Foundation, Inc.

SO PCT Int. Appl., 62 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|---|
| PI | WO 2004021994 | A2 | 20040318 | WO 2003-US27841 | 20030904 | <-- |
| | WO 2004021994 | A3 | 20040812 | | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | | |
| | CA 2496596 | A1 | 20040318 | CA 2003-2496596 | 20030904 | <-- |
| | AU 2003268486 | A1 | 20040329 | AU 2003-268486 | 20030904 | <-- |
| | EP 1536820 | A2 | 20050608 | EP 2003-749452 | 20030904 | <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | | |
| | CN 1694715 | A | 20051109 | CN 2003-824893 | 20030904 | <-- |
| | JP 2006502167 | T | 20060119 | JP 2004-534637 | 20030904 | <-- |
| | CN 1939335 | A | 20070404 | CN 2006-10136269 | 20030904 | <-- |
| | US 20060165700 | A1 | 20060727 | US 2005-526175 | 20050729 | <-- |
| PRAI | US 2002-408126P | P | 20020904 | <-- | | |
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| | WO 2003-US27841 | W | 20030904 | <-- | | |

L11 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Collaborative induction of inflammatory responses by dectin-1 and Toll-like receptor 2

AB Toll-like receptors (TLRs) mediate recognition of a wide range of microbial products including lipopolysaccharides, lipoproteins, flagellin, and bacterial DNA, and signaling through TLRs leads to the production of inflammatory mediators. In addition to TLRs, many other surface receptors have been proposed to participate in innate immunity and microbial recognition, and signaling through some of these receptors is likely to cooperate with TLR signaling in defining inflammatory responses. In this report we have examined how dectin-1, a lectin family receptor for β-glucans, collaborates with TLRs in recognizing microbes. Dectin-1, which is expressed at low levels on macrophages and high levels on dendritic cells, contains an immunoreceptor tyrosine-based activation motif-like signaling motif that is tyrosine phosphorylated upon activation. The receptor is recruited to phagosomes containing zymosan particles but not to phagosomes containing IgG -opsonized particles. Dectin-1 expression enhances TLR-mediated

activation of nuclear factor κB by β -glucan
-containing particles, and in macrophages and dendritic cells dectin-1 and
TLRs are synergistic in mediating production of cytokines such as interleukin
12 and tumor necrosis factor α. Addnl., dectin-1 triggers
production of reactive oxygen species, an inflammatory response that is primed
by TLR activation. The data demonstrate that collaborative recognition of
distinct microbial components by different classes of innate immune
receptors is crucial in orchestrating inflammatory responses.

AN 2003:368316 HCAPLUS <<LOGINID::20081212>>
DN 138:384005
TI Collaborative induction of inflammatory responses by dectin-1 and
Toll-like receptor 2
AU Gantner, Benjamin N.; Simmons, Randi M.; Canavera, Scott J.; Akira,
Shizuo; Underhill, David M.
CS Department of Immunology, University of Washington, Seattle, WA, 98105,
USA
SO Journal of Experimental Medicine (2003), 197(9), 1107-1117
CODEN: JEMEAV; ISSN: 0022-1007
PB Rockefeller University Press
DT Journal
LA English
RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Clostridial neurotoxin targeted conjugates for inhibition of secretion
from non-neuronal cells
AB A method of treatment of disease by inhibition of cellular secretory
processes is provided. The method has particular application in the
treatment of diseases dependent on the exocytotic activity of endocrine
cells, exocrine cells, inflammatory cells, cells of the immune system,
cells of the cardiovascular system, and bone cells. Agents and compns.
therefor, as well as methods for manufacturing these agents and compns., are
provided. In a preferred embodiment a clostridial neurotoxin,
substantially devoid of holotoxin binding affinity for neuronal cells of
the presynaptic muscular junction, is associated with a targeting moiety.
The targeting moiety is selected such that the clostridial toxin conjugate
so formed may be directed to a non-neuronal target cell to which the
conjugate may bind. Following binding, a neurotoxin component of the
conjugate, which is capable of inhibition of cellular secretion, passes
into the cytosol of the target cell by cellular internalization
mechanisms. Thereafter, inhibition of secretion from the target cell is
effected.
AN 2001:228744 HCAPLUS <<LOGINID::20081212>>
DN 134:247267
TI Clostridial neurotoxin targeted conjugates for inhibition of secretion
from non-neuronal cells
IN Foster, Keith Alan; Chaddock, John Andrew; Purkiss, John Robert; Quinn,
Conrad Padraig
PA Microbiological Research Authority, UK
SO PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2001021213 | A2 | 20010329 | WO 2000-GB3669 | 20000925 <-- |
| | WO 2001021213 | A3 | 20020711 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, | | | | |

HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

| | | | | | |
|---|---|---|---|---|---|
| CA 2383470 | A1 | 20010329 | CA 2000-2383470 | 20000925 | <-- |
| EP 1235594 | A2 | 20020904 | EP 2000-962721 | 20000925 | <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL | | | | | |
| JP 2003509476 | T | 20030311 | JP 2001-524636 | 20000925 | <-- |
| AU 782457 | B2 | 20050728 | AU 2000-74365 | 20000925 | <-- |
| US 20030180289 | A1 | 20030925 | US 2002-88665 | 20020814 | <-- |
| AU 2005227383 | A1 | 20051124 | AU 2005-227383 | 20051027 | <-- |
| AU 2005227383 | B2 | 20080821 | | | |
| PRAI GB 1999-22554 | A | 19990923 | <-- | | |
| WO 2000-GB3669 | W | 20000925 | <-- | | |

L11 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Immunopharmacological and immunotoxicological activities of a water-soluble (1 → 3)-β-D-glucan, CSBG from Candida spp
AB We have established a convenient, two-step procedure to solubilize the yeast cell wall (1→3)-β-D-glucan using the combination of NaClO oxidation and DMSO extraction Candida soluble β-D-glucan (CSBG) was mainly composed of a linear β-1,3 glucan with a linear β-1,6-glucan moiety. In this study, we screened for several immunopharmacol. activities of CSBG and found the following activities: (1) interleukin-6 synthesis of macrophages in vitro; (2) antagonistic effect for zymosan mediated-tumor necrosis factor synthesis of macrophages; (3) augmentation for lipopolysaccharide mediated tumor necrosis factor and nitrogen oxide syntheses of macrophages; (4) activation of alternative pathway of complement; (5) hematopoietic response on cyclophosphamide induced leukopenia; (6) the antitumor effect on ascites form tumor; (7) Enhanced vascular permeability; (8) priming effect on lipopolysaccharide triggered TNF-α synthesis; and (9) adjuvant effect on antibody production These results strongly suggested that CSBG possessed various immunopharmacol. activity.
AN 2000:235041 HCAPLUS <<LOGINID::20081212>>
DN 133:12504
TI Immunopharmacological and immunotoxicological activities of a water-soluble (1 → 3)-β-D-glucan, CSBG from Candida spp
AU Tokunaka, Kazuhiro; Ohno, Naohito; Adachi, Yoshiyuki; Tanaka, Shigenori; Tamura, Hiroshi; Yadomae, Toshiro
CS Laboratory for Immunopharmacology of Microbial Products, School of Pharmacy, Tokyo University of Pharmacy and Life Science, Tokyo, 192-0392, Japan
SO International Journal of Immunopharmacology (2000), 22(5), 383-394
CODEN: IJIMDS; ISSN: 0192-0561
PB Elsevier Science Ltd.
DT Journal
LA English
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Interactions of Penicillium marneffei with human leukocytes in vitro
AB Penicillium marneffei, a dimorphic fungus endemic in parts of Asia, causes disease in those with impaired cell-mediated immunity, especially persons with AIDS. The histopathol. of penicilliosis marneffei features the

intracellular infection of macrophages. The authors studied the interactions between human leukocytes and heat-killed yeast -phase P. marneffei. Monocyte-derived macrophages bound and internalized P. marneffei in the presence of complement-sufficient pooled human serum (PHS). Binding and phagocytosis were still seen if PHS was heat inactivated or omitted altogether. The binding of unopsonized P. marneffei to monocyte-derived macrophages occurred in the absence of divalent cations and was not affected by inhibitors of mannose and . beta.-glucan receptors or monoclonal antibodies directed against CD14 and CD11/CD18. Binding was profoundly inhibited by wheat germ agglutinin. A vigorous respiratory burst was seen in peripheral blood mononuclear cells (PBMC) stimulated with P. marneffei, regardless of whether the fungi were opsonized. However, tumor necrosis factor alpha (TNF-α) release from PBMC stimulated with P. marneffei occurred only if serum was present. These data demonstrate that (i) monocyte-derived macrophages bind and phagocytose P. marneffei even in the absence of opsonization, (ii) binding is divalent cation independent but is inhibited by wheat germ agglutinin, suggesting that the major receptor(s) recognizing P. marneffei is a glycoprotein with exposed N-acetyl-β-D-glucosaminyl groups, (iii) P. marneffei stimulates the respiratory burst regardless of whether opsonins are present, and (iv) serum factors are required for P. marneffei to stimulate TNF-α release. The ability of unopsonized P. marneffei to parasitize mononuclear phagocytes without stimulating the production of TNF-α may be critical for the virulence of this intracellular parasite.

AN 1999:554591 HCAPLUS <<LOGINID::20081212>>
DN 131:285214
TI Interactions of Penicillium marneffei with human leukocytes in vitro
AU Rongrungruang, Yong; Levitz, Stuart M.
CS The Evans Memorial Department of Clinical Research and the Department of Medicine, Boston University School of Medicine, Boston, MA, 02118, USA
SO Infection and Immunity (1999), 67(9), 4732-4736
CODEN: INFIBR; ISSN: 0019-9567
PB American Society for Microbiology
DT Journal
LA English
RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Antigen-specific response of murine immune system toward a yeast β -glucan preparation, zymosan
AB Zymosan, a particulate β -glucan preparation from Saccharomyces cerevisiae, shows various biol. activities, including anti-tumor activity. We have previously shown that soluble . beta.-glucan initiated anti-tumor activity was long-lived and was effective even by prophylactic treatment at 1 mo prior to tumor challenge. However, the activity by zymosan was relatively short-lived. Antigen-specific responses of mice to zymosan might be a causative mechanism. In this paper, mice were immunized with zymosan and antibody production and antigen-specific responses of lymphocytes to zymosan were analyzed. Sera of zymosan immune mice contained zymosan -specific IgG assessed by ELISA and FACS. Spleen and bone marrow cells of zymosan-immune mice showed higher cytokine production in response to zymosan. Specificity of zymosan -specific responses were also analyzed using various derivs. prepared from zymosan. These facts strongly suggested that mice recognize zymosan as antigen in addition to non-specific immune stimulant.
AN 1999:311543 HCAPLUS <<LOGINID::20081212>>
DN 131:128740

TI Antigen-specific response of murine immune system toward a yeast β -glucan preparation, zymosan
AU Miura, T.; Ohno, N.; Miura, N. N.; Adachi, Y.; Shimada, S.; Yadomae, T.
CS School of Pharmacy, Laboratory for Immunopharmacology of Microbial Products, Tokyo University of Pharmacy and Life Science, Hachioji, Tokyo, 192-0392, Japan
SO FEMS Immunology and Medical Microbiology (1999), 24(2), 131-139
CODEN: FIMIEV; ISSN: 0928-8244
PB Elsevier Science B.V.
DT Journal
LA English
RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Targeting of natural killer cells to mammary carcinoma via naturally occurring tumor cell-bound iC3b and β - glucan-primed CR3 (CD11b/CD18)
AB Previous reports have suggested that malignant cells frequently generate a humoral immune response that is ineffective in tumor destruction. Despite coating tumors with IgM and IgG that activate the C system via the classical pathway, normal membrane regulators of C (e.g., membrane cofactor protein and CD59) prevent cytotoxicity. Moreover, C3 deposition on tumors does not result in cytotoxic recognition by phagocytes or NK cells bearing C3 receptors capable of mediating destruction of C3-opsonized bacteria or yeast . The current investigation showed that freshly excised mammary tumors bore IgM, IgG, and C3 detectable by flow cytometry. Normal sera contained natural IgM and IgG Abs reactive with breast tumor cell lines, and IgG Ab titers were increased in patients with breast cancer. Breast tumor cell lines incubated in normal serum from AB+ individuals activated the classical, but not the alternative, pathway of C and became coated with C3. Despite exhibiting membrane-bound C3, serum-opsonized breast tumor cell lines were not killed by CR3 (CD11b/CD18)-bearing NK cells. Priming of NK cell CR3 with small soluble yeast β -glucan polysaccharides enabled CR3-dependent killing of these same C3-bearing tumor cell lines. Tests of mammary carcinoma cells from freshly excised tumors demonstrated that they also bore sufficient amts. of opsonic C3 for cytotoxic recognition by NK cells bearing polysaccharide-primed CR3, whereas they were largely resistant to NK cells bearing unprimed CR3. This study demonstrates the potential utility of using naturally occurring opsonic C3 on tumor cells for specific immunotherapeutic targeting by NK cells and phagocytes bearing polysaccharide-primed CR3.
AN 1997:448273 HCAPLUS <<LOGINID::20081212>>
DN 127:204305
OREF 127:39698h,39699a
TI Targeting of natural killer cells to mammary carcinoma via naturally occurring tumor cell-bound iC3b and β - glucan-primed CR3 (CD11b/CD18)
AU Vetvicka, Vaclav; Thornton, Brian P.; Wieman, T. Jeffery; Ross, Gordon D.
CS Division of Experimental Immunology and Immunopathology, Dep. of Pathology and Division of Surgical Oncology, Dep. of Surgery, University of Louisville, Louisville, KY, 40292, USA
SO Journal of Immunology (1997), 159(2), 599-605
CODEN: JOIMA3; ISSN: 0022-1767
PB American Association of Immunologists
DT Journal
LA English
RE.CNT 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Interrelation of structure and antitumor effects of fungal (1→3) β-D-glucans.
AB In the last 25 yr chemical and pharmacol. studies have been focused on the non-cytotoxic, immunomodulating polysaccharides. Yeast and related fungal (1→3)-β-D-glucans, especially, those having appropriate O-6-β-D-glucosyl branches (db, 1/3 to 1/5) exhibited strong antitumor effects, and can be used as an immnumostimulator in cancer therapy. Such antitumor effects may be due to the triple helix of the backbone; (1→6)- β -glucan of lichen and also synthetic branched (1→4)-β-D-glucans were inactive. In addition, our extensive studies on the structure-activity relationship using various branched (1→3)-β-D-glucans (db, 1/25 - 3/4) showed that the distribution of the branches along the backbone and their mol. shapes may also play a role in expression of antitumor activity, as indicated by modification of the side chains. We will discuss interrelation of structure and antitumor effects of immunomodifying glucans, e.g, an exocellular glucan of Pestalotia sp (db, 3/5), and a highly active glucan (db. 1/4) from Volvariella volvaceas, and also antibody specificities of Volvariella glucan.
AN 1996:412276 HCAPLUS <<LOGINID::20081212>>
TI Interrelation of structure and antitumor effects of fungal (1→3) β-D-glucans.
AU Misaki, A.; Kakuta, M.; Kishida, Etsu
CS Faculty Human Life Science, Osaka City University, Sumiyoshi, 558, Japan
SO Book of Abstracts, 212th ACS National Meeting, Orlando, FL, August 25-29 ( 1996), CARB-042 Publisher: American Chemical Society, Washington, D. C.
CODEN: 63BFAF
DT Conference; Meeting Abstract
LA English

L11 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Ingestion of acapsular Cryptococcus neoformans occurs via mannose and . beta.-glucan receptors, resulting in cytokine production and increased phagocytosis of the encapsulated form
AB Cryptococcus neoformans is a pathogenic yeast and a major cause of opportunistic infection in AIDS patients. It is commonly found in an acapsular form in the environment, and infection is likely to occur by inhalation. The lung provides a suitable environment for capsule synthesis, and once encapsulated, C. neoformans becomes resistant to phagocytosis. A stable acapsular mutant of the organism is readily ingested by murine macrophages in vitro, indicating entry via constitutively competent receptors. We demonstrate in this report that this process is inhibitable by particles derived from Saccharomyces cerevisiae that are rich in mannan and β -glucan, as well as more purified forms of these glycans. Furthermore, ingestion of the acapsular form of C. neoformans induces a range of proinflammatory cytokines, including tumor necrosis factor alpha and granulocyte-macrophage colony-stimulating factor, which, as we have previously shown, enhance ingestion of serum-opsonized encapsulated C. neoformans in vitro. We demonstrate that ingestion of the acapsular form of the organism also enhances ingestion of the pathogenic encapsulated form. This is dependent on the production of tumor necrosis factor alpha and granulocyte-macrophage colony-stimulating factor by the macrophages, since addition of neutralizing antibodies to both cytokines inhibited the observed increase in ingestion. Together, these data demonstrate that ingestion of acapsular C. neoformans is mediated via mannose and β -glucan receptors on the macrophage

surface and that this process activates macrophages for enhanced phagocytosis of the encapsulated form via production of macrophage-derived cytokines.

AN 1995:659132 HCAPLUS <<LOGINID::20081212>>

DN 123:81423

OREF 123:14539a,14542a

TI Ingestion of acapsular Cryptococcus neoformans occurs via mannose and . beta.-glucan receptors, resulting in cytokine production and increased phagocytosis of the encapsulated form

AU Cross, C. E.; Bancroft, G. J.

CS Dep. Clinical Sciences, London Sch. Hygiene Tropical Med., London, WC1E 7HT, UK

SO Infection and Immunity (1995), 63(7), 2604-11
CODEN: INFIBR; ISSN: 0019-9567

PB American Society for Microbiology

DT Journal

LA English